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10/021,101	10/30/2001	Donald E. Woodmansee	9038-119600	8973

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EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2171

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/021,101	Applicant(s) WOODMANSEE, DONALD E.	
	Examiner Etienne P LeRoux	Art Unit 2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Status:

Claim 1 is currently amended. Claims 2-20 are original. Claims 1-20 are rejected in this office action and this action is made final.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 7, 9, 11, 14-16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,515,266 issued to Meyer (hereafter Meyer).

Claim 1:

Meyer discloses a method for tracking part histories for a set of serialized parts, said method comprising:

- providing a database of part status data [col 1, lines 28-30 and col 1, lines 40-43];
- noting when a service outage affecting one or more of said parts occurs [maintenance work per col 1, lines 28-30]
- and for each part in said database, entering the part status during an outage into said database [file is created during maintenance work per col 1, lines 28-30]

Meyer discloses the elements of claim 1 as noted above.

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Furthermore, Meyer discloses a spare part management system [col 2, lines 31-35] but is silent regarding scheduling necessary updating of the spare part management system, for example, updating the spare part management system at the end of the outage.

It would have been obvious to the skilled artisan at the time the invention was made to modify Meyer to include entering the part status at the end of said outage into said database for the purpose of keeping the master data concerning the availability of spare parts current and up-to-date so that the next service outage can be accurately planned [col 7, lines 1-7 and col 7, lines 16-21]. The skilled artisan would enter the most up-to-date information regarding the machine component parts at the end of the outage because the spare management system would need updating after parts are drawn from inventory for repair of the machine during the outage.

Claim 2:

Meyer discloses using part status data to evaluate remaining life for one or more of said parts [col 2, lines 15-23].

Claim 4:

Meyer discloses wherein said database uses text and/or numeric descriptors to represent part statuses [col 5, lines 40-45].

Claims 6 and 18:

Meyer discloses the elements of claim 1 as noted above.

Meyer fails to disclose wherein said part status data is sorted by part status.

However, Meyer discloses storing a status condition [col 5, lines 40-45]

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Meyer to include wherein said part status data is sorted by part status.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of searching a database to obtain the current status of a part so that a future outage can be planned.

Claims 7 and 19:

Meyer discloses calculating cumulative run hours for one or more of said parts [Fig 3 and col 5, lines 7-15].

Claim 9:

Meyer discloses a method for tracking part histories for a set of serialized parts used in one or more gas turbine engines, said method comprising:

- providing a database of part status data [stored as data in a file per col 1, lines 59-66];
- noting an engine outage date associated with a service outage of one or more of said engines; and for each part in said database [col 6, line 19-23],
- entering the part status into said database [col 5, lines 40-45] .

Meyer discloses the elements of claim 9 as noted above.

Meyer fails to disclose entering the part status at the end of said outage into said database.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include entering the part status at the end of said outage into said database.

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The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of including data reflecting parts which have been refurbished during the outage.

Claim 11:

Meyer discloses using part status data to evaluate remaining life for one or more of said parts [col 2, lines 15-23].

Claim 14:

Meyer discloses said database uses shorthand descriptors to represent part statuses [col 5, lines 40-45].

Claim 15:

Meyer discloses the elements of claims 9 and 14 as noted above.

Meyer fails to disclose said database uses text descriptors to represent new part status, transferred part status and scrapped part status.

However, Meyer uses text descriptors to indicate the current operating condition [spare parts per col 7, lines 1-7, spare management per col 8, lines 53-56, defective parts per col 5, lines 40-45].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Meyer to include wherein said database uses text descriptors to represent new part status, transferred part status and scrapped part status.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of identifying status so that it can be easily entered into a field in a relational database and subsequently searched in order to obtain current status of the machine components.

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Claim 16:

Meyer discloses wherein said database uses numeric descriptors to represent which one of said engines a part is installed in [col 9, lines 8-42].

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 5,765,154 issued to Horikiri et al (hereafter Horikiri).

Claims 3 and 12:

Meyer discloses the elements of claims 1 and 9 as noted above.

Meyer fails to disclose wherein said database is a relational database comprising multiple tables linked by keys.

Horikiri discloses wherein said database is a relational database comprising multiple tables linked by keys [col 25, lines 60-66].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include wherein said database is a relational database comprising multiple tables linked by keys as taught by Horikiri.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of improving searching of a database by including a keyword [col 25, lines 60-66].

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Meyer and Horikiri in view of US Pat No 4,803,639 issued to Steele et al (hereafter Steele).

Claims 13:

The combination of Meyer and Horikiri discloses the elements of claims 9 and 12 as noted above.

The combination of Meyer and Horikiri fails to disclose wherein said part status data is sorted by part serial number.

Steele discloses wherein said part status data is sorted by part serial number [Fig 18, 342 and col 32, lines 5-26].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Meyer and Horikiri to include wherein said part status data is sorted by part serial number as taught by Steele.

The ordinarily skilled artisan would have been motivated to modify the combination of Meyer and Horikiri per the above for the purpose of providing an easy means of retrieving machine component data based on the manufacturer's identification for the part.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 4,803,639 issued to Steele et al (hereafter Steele).

Claim 5 and 17:

Meyer discloses the elements of claims 1 as noted above.

Meyer fails to disclose wherein said part status data is sorted by part serial number.

Steele discloses wherein said part status data is sorted by part serial number [Fig 18, 342 and col 32, lines 5-26].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include wherein said part status data is sorted by part serial number as taught by Steele.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of providing an easy means of retrieving machine component data based on the manufacturer's identification for the part.

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 5,033,010 issued to Lawrence et al (hereafter Lawrence).

Claims 8 and 20:

Meyer discloses the elements of claim 1 as noted above.

Meyer fails to disclose calculating cumulative starts for one or more of said parts.

Lawrence discloses calculating cumulative starts for one or more of said parts [col 14, lines 3-11].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include calculating cumulative starts for one or more of said parts as taught by Lawrence.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of recording low cycle fatigue events [Lawrence, col 14, lines 11-15]

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 6,523,502 issued to Hughes (hereafter Hughes).

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Claim 10:

Meyer discloses the elements of claim 9 as noted above.

Meyer fails to disclose said engine outage date is the date one of said engines is shut down.

Hughes as admitted prior art discloses said engine outage date is the date one of said engines is shut down [col 3, line 18].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include said engine outage date is the date one of said engines is shut down.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of performing maintenance on the engine.

Response to Arguments

Applicant's arguments filed 7/20/2004 have been fully considered but they are not persuasive.

Applicant Argues:

Applicant states on page 10 "Applicant points out that as recited in claim 1 and 9, the part data is recorded whenever a service outage occurs, and specifically the part status is entered at the end of the service outage to track the entire history of the parts. In addition, Applicant's invention prescribes performing such tasks based on service outages to minimize the stipulation of event dates, thereby simplifying compilations of site history to outage dates. Further, Applicant's invention is particularly advantageous as it includes tracking the data at the end of

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the service outage, and thus during each corresponding period to enable a complete part history.

This complete part history is used for estimation of the remaining life of the parts. Applicant respectfully submits that there is no suggestion in Meyer that would have motivated an ordinarily skilled artisan to modify Meyer for the purpose of including the part data at the end of an outage.”

Examiner Responds:

Examiner is not persuaded. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, knowledge generally available to the ordinarily skilled artisan would have motivated the ordinarily skilled artisan to enter the part status into the database at the end of the outage for the reasons given below.

Meyer discloses that spare parts are required at preset times for corresponding repair of the machine [col 7, lines 1-7 and col 9, lines 36-43]. Examiner maintains that the preset time disclosed by Meyer reads on the claimed “outage.” It is well-known in factories comprising production processes that the maintenance of machinery must be coordinated at preset times so that down-time of the process can be minimized. Thus planned outages are planned in advance at particular preset times [Meyer col 1, lines 25-30].

Meyer discloses connection 42, Fig 6 to a portable device. The portable device, e.g. laptop computer, can be connected to a master file that contains master data concerning the availability of spare parts [col 7, lines 15-20]. It is inherent in the disclosure by Meyer that this master file concerning the availability of spare parts is kept current and up-to-date. It would have been obvious to one of ordinary skill in the art to update this file after spare parts are removed from inventory for purposes of repair of the machine during an outage.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (703) 305-0620. The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Patent related correspondence can be forwarded via the following FAX number (703) 872-9306

Etienne LeRoux

9/3/2004


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